



UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE
United States Patent and Trademark Office
Address: COMMISSIONER OF PATENTS AND TRADEMARKS
Washington, D.C. 20231
www.uspto.gov

APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/783,287	02/15/2001	Tadahiro Ohmi	SUGI0069	3212

7590 12/18/2002
Joerg-Uwe Szipl
Griffin & Szipl, P.C.
Suite PH-1
2300 Ninth Street, South
Arlington, VA 22204-2320

EXAMINER

RIDLEY, BASIA ANNA

ART UNIT	PAPER NUMBER
1764	10

DATE MAILED: 12/18/2002

Please find below and/or attached an Office communication concerning this application or proceeding.

Office Action Summary

Application No.

09/783,287

Applicant(s)

OHMI ET AL.

Examiner

Basia Ridley

Art Unit

1764

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 30 September 2002.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 47-80 is/are pending in the application.
- 4a) Of the above claim(s) 48-55, 57, 61-64 and 66-80 is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 47, 56, 58-60 and 65 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☒ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 15 February 2002 is/are: a) ☐ accepted or b) ☒ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on _____ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some * c) ☐ None of:
1. ☐ Certified copies of the priority documents have been received.
2. ☒ Certified copies of the priority documents have been received in Application No. 09/117,350.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- * See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☒ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) _____
- 4) ☐ Interview Summary (PTO-413) Paper No(s) _____
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: _____

Art Unit: 1764

DETAILED ACTION

Election/Restrictions

1. Applicant's election with traverse of Group II, Species C and Sub-Species 14 (as represented by Fig. 49) in Paper No. 9 is acknowledged. The water-generating reactor of Fig. 49 is elected for the prosecution to the extent that is limited to Species C, as set forth in Paper 7.

The traversal is on the ground(s) that the various species of the apparatus claims are so intimately related in subject matter that no duplicates searching is necessary and thus the method and apparatus should be examined together.

This is not found persuasive. Firstly, there is no requirement for the examiner to establish that a serious burden exists if restriction between patentably distinct species is not required. See MPEP 808.01(a). Secondly, the applicant has not presented any arguments as to why the method and apparatus should be examined together. Further, currently the application does not contain any claims directed to a method.

The restriction requirement is still deemed proper and is therefore made FINAL.

2. The applicant has cancelled all original claims (1-46) and presented new claims 47-80. Of the newly presented claims 48-55, 57, 61-64, 66-69 and 73-80 are withdrawn from consideration pursuant to 37 CFR 1.142(b) as being drawn to non-elected species, there being no allowable generic or linking claim.

Further, claim(s) 70-72 is/are withdrawn from further consideration by the examiner pursuant to 37 CFR 1.142(b), as being drawn to a nonelected species, there being no allowable generic or linking claim. Claim(s) 70-72 recite(s) a water-generating reactor comprising a gas-diffusing member. Said claim(s) is/are drawn to nonelected species D, as set forth in Paper 7 and on pages 4-7 of instant specification.

copy
re.
claims
81-82

Art Unit: 1764

Priority

3. Acknowledgment is made of applicant's claim for foreign priority under 35 U.S.C. 119(a)-(d). The certified copies of parent documents has been filed in parent Application No. 09/117,350, filed on 9 June 1999.

main { 4. Acknowledgment is made of applicant's claim for domestic priority under 35 U.S.C. 120 to Application No. 09/117,350. The specification should be amended to include correct filing date (9 June 1999) and current status of said parent application.

Title

main { 5. The title of the invention is not descriptive as it encompasses the elected and non-elected inventions. A new title is required that is clearly indicative of the invention to which the claims are directed.

Specification

6. The incorporation of essential material in the specification by reference to a foreign application or patent, or to a publication is improper (see first paragraph on page 1, added by Preliminary Amendment filed on 15 February 2001). Applicant is required to amend the disclosure to include the material incorporated by reference. The amendment must be accompanied by an affidavit or declaration executed by the applicant, or a practitioner representing the applicant, stating that the amendatory material consists of the same material incorporated by reference in the referencing application. See *In re Hawkins*, 486 F.2d 569, 179 USPQ 157 (CCPA 1973); *In re Hawkins*, 486 F.2d 579, 179 USPQ 163 (CCPA 1973); and *In re Hawkins*, 486 F.2d 577, 179 USPQ 167 (CCPA 1973).

The applicant is reminded that there is no requirement under 35 U.S.C. 119 and/or 365 that an application in which the benefits of an earlier application are desired must contain a specific

Art Unit: 1764

reference to the prior application(s) in the first sentence of the specification. Such reference is only required when claim is made for domestic priority under 35 U.S.C. 120.

7. The disclosure is objected to because of the following informalities:

✓ - “(H₂O + O₂) and contaminate a gas (H₂O + O₂)” on P2/L15-16 should be replaced by --(H₂O + O₂) and contaminate a gas (H₂O + O₂)--;

✓ on P3/L16 “N₂ O” is not clear;

✓ - apparent inconsistency: P26/L17-22 state that Fig. 21 shows results of Test Example 3 while P10/L16-17 states that Fig. 21 is a diagram of Test 2;

✓ - inconsistent numbering of elements, e.g. “heater 9” on P40/L16 and “heater 19” throughout the specification.

Appropriate correction is required. Applicant is reminded that no new matter shall be added.

✓ 8. The specification is objected to as failing to provide proper antecedent basis for the claimed subject matter. See 37 CFR 1.75(d)(1) and MPEP § 608.01(o). Correction of the following is required: claim 56 recites that “the passage is an internal space defined by recesses inside the reactor body” and that “the recesses include a first recess having a surface”. In view of the accepted meaning of the word “recess” being “a. an indentation or small hollow. b. an alcove¹” and lack of any other definition of said word in the instant specification, the meaning of claim 56 is not clear. What part of the reactor disclosed in the instant specification is defined as “recesses” and which one of said recesses is a “first recess” having a surface?

Drawings

¹ The American Heritage® Dictionary of the English Language, Third Edition copyright © 1992 by Houghton Mifflin Company. Electronic version licensed from INSO Corporation; further reproduction

Art Unit: 1764

9. The corrected or substitute drawings were received on 15 February 2001. These drawing are not acceptable for the reasons stated below.

10. The following figures should be designated by a legend such as --Prior Art-- because only that which is old is illustrated. See MPEP § 608.02(g).

- Fig. 46, as set forth on P13/L3-5 of specification;
- Fig. 47, as set forth on P13/L6-8 of specification;
- Fig. 48, as set forth on P13/9-10 of specification;
- Fig. 52, as set forth on P13/L19-20 of specification;
- Fig. 53, as set forth on P13/L21-22 of specification.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. Applicant is reminded that no new matter shall be added.

11. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- "MFC0" in Fig. 14;
- "N" in Fig. 36;
- "29e" in Fig. 49;
- "MFC" in Fig. 53.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

Art Unit: 1764

12. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(5) because they include the following reference sign(s) not mentioned in the description:

- "N1", as recited on P34/L27;
- "29a' " in Fig. 49, as recited on P53/L9.

A proposed drawing correction, corrected drawings, or amendment to the specification to add the reference sign(s) in the description, are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

13. The drawings are objected to as failing to comply with 37 CFR 1.84(p)(4) because:

- in Fig. 16 reference characters "A" and "C" have both been used to designate the same curve;
- in Fig. 43 reference characters "30" and "31" have been used to designate the same element.

A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance.

14. The drawing(s) is/are objected to as failing to comply with 37 CFR 1.84(q) because it/they contain(s) reference character(s) (e.g. ref. 1 in Fig. 2-5, 7-13, ref. 7 in Fig. 3-4, ref. 10 in Fig. 38, ref. 21 and 28 in Fig. 43 and 49 and ref. 33 in Fig. 44-45) which is/are, both, underlined and has/have lead line(s). Applicant is reminded that underlined reference characters indicate surface or cross-section on which they are placed and they do not need lead lines. A proposed drawing correction or corrected drawings are required in reply to the Office action to avoid abandonment of the application. The objection to the drawings will not be held in abeyance. Applicant is reminded that no new matter shall be added.

Response to Amendment

Art Unit: 1764

15. The Preliminary Amendment filed on 15 February 2001 is objected to under 35 U.S.C. 132 because it introduces new matter into the disclosure. 35 U.S.C. 132 states that no amendment shall introduce new matter into the disclosure of the invention. The added material which is not supported by the original disclosure is as follows:

- the requested amendment to P16/L7, reciting "20 m long" is not supported by original specification, because, the original specification discloses that said piping is 2 m long but not 20 m long;
- the requested amendment to P18/L22, reciting "higher than" is not supported by original specification, because, the original specification discloses that said gas is heated to about 120°C but not to about higher than 120°C;
- the requested amendment to P38/L11, reciting "0.5 mm" is not supported by original specification, because, the original specification discloses that said film thickness is selected to be around 5 mm but not to around 0.5 mm.

Applicant is required to cancel the new matter in the reply to this Office Action.

Claim Rejections - 35 USC § 112

16. The following is a quotation of the first paragraph of 35 U.S.C. 112:

The specification shall contain a written description of the invention, and of the manner and process of making and using it, in such full, clear, concise, and exact terms as to enable any person skilled in the art to which it pertains, or with which it is most nearly connected, to make and use the same and shall set forth the best mode contemplated by the inventor of carrying out his invention.

17. Claims 56, 58-60 and 65 are rejected under 35 U.S.C. 112, first paragraph, as containing subject matter which was not described in the specification in such a way as to enable one skilled in the art to which it pertains, or with which it is most nearly connected, to make and/or use the invention. Claim 56 recites that "the passage is an internal space defined by recesses inside the reactor body" and that "the recesses include a first recess having a surface". In view of the accepted

Art Unit: 1764

meaning of the word "recess" being "a. an indentation or small hollow. b. an alcove¹" and lack of any other definition of said word in the instant specification, the meaning of claim 56 is not clear.

What part of the reactor disclosed in the instant specification is defined as "recesses" and which one of said recesses is a "first recess" having a surface?

18. The following is a quotation of the second paragraph of 35 U.S.C. 112:

The specification shall conclude with one or more claims particularly pointing out and distinctly claiming the subject matter which the applicant regards as his invention.

19. Claim(s) 47, 56, 58-60 and 65 are rejected under 35 U.S.C. 112, second paragraph, as being indefinite for failing to particularly point out and distinctly claim the subject matter which applicant regards as the invention.

Claim(s) 47 recite(s) the limitation(s) "hydrogen and oxygen" in line(s) 2, 5 and 7. Said claim(s) is/are indefinite as it is not clear what is the difference between various hydrogen and oxygen recited in said claim(s). Suggested correction is to replace "hydrogen and oxygen" in line(s) 5 and 7 with --the hydrogen and oxygen--.

In claim 56 the recitation "film is disposed on the surface of the first recess surface", line(s) 6, renders said claim indefinite. It is not clear if the film is disposed on previously recited surface of the first recess or if there is an additional surface (i.e. layer) in between the previously recited surface of the first recess and the film. Suggested correction is --film is disposed on the surface of the first recess--.

Claim(s) 56 recite(s) the limitation(s) "hydrogen and oxygen" in line(s) 7. Said claim(s) is/are indefinite as it is not clear what is the difference between said hydrogen and oxygen and hydrogen and oxygen recited in claim 47. Suggested correction is to replace "hydrogen and oxygen" in line(s) 7 of claim 56 with --the hydrogen and oxygen--.

In claim 56 the recitation "water is generated from reactivity of the hydrogen and the oxygen", line(s) 7-8, renders said claim indefinite. Suggested correction is to replace said recitation with --water is generated by a reaction between the hydrogen and the oxygen--.

Claim(s) 59 recite(s) the limitation(s) "the platinum coated film", line(s) 2. There is insufficient antecedent basis for said limitation(s) in the claim(s). Suggested correction is --the platinum coating film--.

Claim(s) 60 recite(s) the limitation(s) "a ratio of oxygen to hydrogen", line(s) 2 and 3. Said claim(s) is/are indefinite as it is not clear what is the basis for the aforementioned ratio (e.g. by weight, by volume, or by mole).

Claim Rejections - 35 USC § 102

20. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless --

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

21. Claim(s) 47, 56 and 60 are rejected under 35 U.S.C. 102(b) as being anticipated by JP 4-54184 (Sumitomo Heavy Industries).

Regarding claim(s) 47 and 56, JP 4-54184 disclose(s) similar water generating reactor comprising:

- an inlet to receive hydrogen and oxygen (Fig. 1, claims);
- an outlet to expel water (Fig. 1, claims);

Art Unit: 1764

- a passage formed in the reactor, wherein the inlet is disposed at one end of the passage and the outlet is disposed at another end of the passage, so that hydrogen and oxygen flows through the inlet and into the passage (Fig. 1, claims); and
- a catalyst material disposed in the passage so as to contact hydrogen and oxygen in the passage (Fig. 1, claims);
- a metal reactor body, wherein the inlet and the outlet are mounted on the reactor body, the outlet is a water and moisture take-out joint, the passage is an internal space defined by recesses inside the reactor body, and the recesses include a first recess having a surface (Fig. 1); and
- a platinum coating film is disposed on the surface of the first recess (claims).

Regarding limitations recited in claim 60 which are directed to a manner of operating disclosed water generating reactor, the examiner notes that neither the manner of operating a disclosed device nor material or article worked upon further limit an apparatus claim. Said limitations do not differentiate apparatus claims from prior art. See MPEP § 2114 and 2115.

Instant claim(s) 47, 56 and 60 structurally read(s) on reactor of JP 4-54184.

Claim Rejections - 35 USC § 103

22. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

23. Claim(s) 58 is rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-54184 (Sumitomo Heavy Industries).

Regarding claim(s) 58, JP 4-54184 disclose(s) all of the claims limitations as set forth above, but the reference does not explicitly disclose the platinum coating film being 10Å to 0.5 mm

Art Unit: 1764

thick. The specific thickness of the platinum coating film is not considered to confer patentability to the claims. As the reactor cost of construction and efficiency of operation are variable(s) that can be modified, among others, by adjusting said thickness of the platinum coating film, with said construction cost and operating efficiency both increasing as the coating thickness is increased, the precise coating thickness would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed coating thickness cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the thickness of the coating in the apparatus of JP 4-54184 to obtain the desired balance between the construction cost and the operation efficiency (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

Regarding the recitation of a method in which said coating is made, the examiner notes that the determination of patentability is determined by the recited structure of the apparatus and not by a method of making said structure. A claim containing a recitation with respect to the manner in which a claimed apparatus is made does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim.

24. Claim(s) 59 and 65 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-54184 (Sumitomo Heavy Industries), as applied to claim 58, and further in view of JP 52-111891 (Honda Motor Ind. Co. Ltd.).

Regarding claim(s) 59 and 65, JP 4-54184 disclose(s) all of the claims limitations as set forth above, but the reference does not disclose said platinum coating film being formed on a barrier

Art Unit: 1764

film of a non-metal material that is disposed on the surface of the first recess of the reactor body, wherein the barrier film is made of at least one material selected from the group consisting of TiN, TiC, TiCN and TiAlN.

JP 52-111891 teaches that metal surface can be hardened by coating said metal surface with barrier film is made of at least one material selected from the group consisting of TiN, TiC, TiCN and TiAlN.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a barrier film made of at least one material selected from the group consisting of TiN, TiC, TiCN and TiAlN to the apparatus of JP 4-54184 for the purpose of hardening said apparatus.

25. Claim(s) 59 and 65 is/are rejected under 35 U.S.C. 103(a) as being unpatentable over JP 4-54184 (Sumitomo Heavy Industries), as applied to claim 58, and further in view of JP 6-122580 (Mitsubishi Heavy Ind. Ltd.).

Regarding claim(s) 59 and 65, JP 4-54184 disclose(s) all of the claims limitations as set forth above, but the reference does not disclose said platinum coating film being formed on a barrier film of a non-metal material that is disposed on the surface of the first recess of the reactor body, wherein the barrier film is made of at least one material selected from the group consisting of TiN, TiC, TiCN and TiAlN.

JP 6-122580 teaches that corrosion resistance can be increased by adding a barrier film made of at least one material selected from the group consisting of TiN, TiC, TiCN and TiAlN.

It would have been obvious to one of ordinary skill in the art at the time the invention was made to add a barrier film made of at least one material selected from the group consisting of TiN, TiC, TiCN and TiAlN to the apparatus of JP 4-54184 for the purpose of increasing corrosion resistance of said apparatus.

Art Unit: 1764

26. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary. Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(f) or (g) prior art under 35 U.S.C. 103(a).

Double Patenting

27. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

28. Claim(s) 47, 56, 58-60 and 65 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim(s) 1-8 of copending Application No. 09/905,209 and over claim(s) 1-8 of copending Application No. 10/096,247. Although the conflicting claims are not identical, they are not patentably distinct from each other because said claims 47, 56, 58-60 and 65 of the instant application recite only the limitations which are recited in claims 1-8 of copending Application No. 09/905,209 and in claim(s) 1-8 of copending Application No. 10/096,247.

Art Unit: 1764

Regarding claim(s) 58 and 59, claim(s) 1-8 of copending Application No. 09/905,209 and claim(s) 1-8 of copending Application No. 10/096,247 disclose(s) all of the claims limitations as set forth above, but the references do not explicitly disclose the platinum coating film being 10Å to 0.5 mm thick. The specific thickness of the platinum coating film is not considered to confer patentability to the claims. As the reactor cost of construction and efficiency of operation are variable(s) that can be modified, among others, by adjusting said thickness of the platinum coating film, with said construction cost and operating efficiency both increasing as the coating thickness is increased, the precise coating thickness would have been considered a result effective variable by one having ordinary skill in the art at the time the invention was made. As such, without showing unexpected results, the claimed coating thickness cannot be considered critical. Accordingly, one of ordinary skill in the art at the time the invention was made would have optimized, by routine experimentation, the thickness of the coating in the apparatus of the references to obtain the desired balance between the construction cost and the operation efficiency (*In re Boesch*, 617 F.2d. 272, 205 USPQ 215 (CCPA 1980)), since it has been held that where the general conditions of the claim are disclosed in the prior art, discovering the optimum or workable ranges involves only routine skill in the art. (*In re Aller*, 105 USPQ 223).

Regarding the recitation of a method in which said coating is made, the examiner notes that the determination of patentability is determined by the recited structure of the apparatus and not by a method of making said structure. A claim containing a recitation with respect to the manner in which a claimed apparatus is made does not differentiate the claimed apparatus from a prior art apparatus if the prior art apparatus teaches all the structural limitations of the claim.

This is a provisional obviousness-type double patenting rejection because the conflicting claims have not in fact been patented.

Art Unit: 1764

Conclusion


29. In view of the foregoing, none of the claims are allowed.

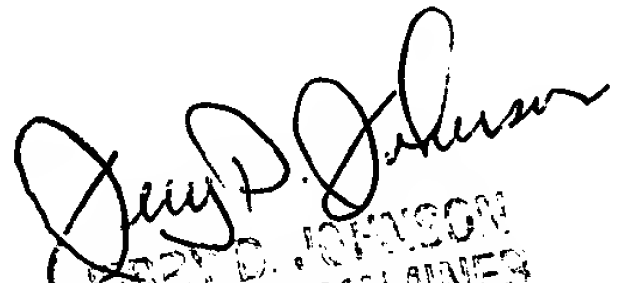
30. Any inquiry concerning this communication or earlier communications from the examiner should be directed to examiner Basia Ridley, whose telephone number is (703) 305-5418. The examiner can normally be reached on Monday through Thursday, from 8:30 AM to 7:00 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Glenn Caldarola, can be reached on (703) 308-6824.

The fax phone number for Group 1700 is (703) 872-9311 (for Official papers after Final), (703) 872-9310 (for other Official papers) and (703) 305-6078 (for Unofficial papers). When filing a fax in Group 1700, please indicate in the Header (upper right) "Official" for papers that are to be entered into the file, and "Unofficial" for draft documents and other communication with the PTO that are not for entry into the file of the application. This will expedite processing of your papers.

Any inquiry of a general nature or relating to the status of this application should be directed to the Group receptionist whose telephone number is (703) 308-0661.

Basia Ridley 
Examiner
Art Unit 1764


JAMES P. JOHNSON
PRIMARY EXAMINER
GROUP 1700

BR
December 13, 2002